# *2nd Soil Moisture Active Passive (SMAP) Applications Workshop*
# *Location: Jefferson Auditorium, USDA South Building, Independence SW, Washington, DC 20250*
# *October 12-13 2011*

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| *The NASA Soil Moisture Active Passive (SMAP) mission has a targeted launch date of 2014. It will provide global measurements of soil moisture and freeze/thaw state (http://smap.jpl.nasa.gov/). SMAP applications include improving drought and flood guidance, agricultural productivity estimation, weather forecasting, climate predictions, disease risk assessment, and national defense.*<br>*This workshop is focused on sharing information about SMAP applications and informing the SMAP Mission about the challenges facing users of SMAP data.*<br>***The SMAP Workshop objectives** are to articulate specific uses of SMAP data within the user community and to improve communication between the user community and the science development of the SMAP Mission.*<br>***Expected Workshop Outcomes**: further maturation of the SMAP Applications Plan and improved awareness of SMAP data* | | |
| **12 October Wednesday** | | |
| **7:30am** | **Registration and Coffee** | |
| **8:30-11:45am** | Ann Mills, Deputy Under Secretary, USDA/NRE *(15 min)* | USDA Welcome |
| | Brad Doorn, NASA HQ *(15 min)* | SMAP Welcome, Charge to Workshop |
| | Jared Entin, NASA HQ *(25 min)* | SMAP Mission Overview |
| | Molly Brown, NASA *(15 min)* | SMAP Applications Plan |
| | **9:40-10 am Break** | |
| | Susan Moran, USDA | Early Adopters Presentation-Opening |
| | Early Adopter Presentations: Three of seven Early Adopters will present their research and how they expect SMAP data to be used in their application once it exists. | |
| | Dr. Stephane Belair and Dr. Marco Carrera (Environment Canada) *(30 min)* | *Assimilation and Impact Evaluation of Observations from SMAP Mission in Environment Canada's Predictive Systems (CaLDAS)* |
| | Dr. Lars Isaksen and Dr. Patricia de Rosnay (ECMWF) *(30 min)* | *Implementation of SMAP brightness temperature and soil moisture at ECMWF* |
| | Dr. Xiwu Zhan (NOAA): *(30 min)* | *Transition of NASA SMAP research to NOAA Operational Numerical Weather and Seasonal Climate Predictions and Research Hydrological Forecast* |
| **11:45 - 1:00pm** | **Lunch** | |
| **1-3:00pm** | Early Adopter Presentations Continued: Remaining four of seven Early Adopters will present. | |
| | Dr. Hosni Ghedira (Masdar Institute, UAE): *(30 min)* | *Estimating and Mapping the Extent of Saharan Dust Emissions Using SMAP –derived soil moisture data* |

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| | Dr. Zhengwei Yang/Mr. Rick Mueller (USDA NASS)<br>*(30 min)* | *U.S. National Cropland Soil Moisture Monitoring Using SMAP* |
| | Dr. Catherine Champagne (Agriculture and Agri-food Canada):<br>*(30 min)* | *Soil Moisture Monitoring in Canada* |
| | Dr. Amor Ines and Dr. Stephen Zebiak (IRI):<br>*(30 min)* | *SMAP for Crop Casting and Food security Early Warning Application* |
| **3:00-3:15pm** | Fiona Shaw and Nigel Davis, (Willis, UK) | *International Applications of SMAP for Engaging the Insurance and Financial Services Sector* |
| | **3:15pm-3:30pm Break** | |
| **3:30-4:00pm** | Barry Weiss, NASA | Data Set discussion and description |
| *The SMAP Early Adopters are a subset of the SMAP Community of practice. They have access to the SMAP pre-launch simulation data streams and conduct applications demonstrations in collaboration with the SMAP SDT. Early Adopters are users who submitted a proposal and demonstrated a direct or clearly defined need for SMAP-like soil moisture data, and who have sufficient interest and/or personnel to demonstrate the utility of SMAP data for their particular system or model. They share their experience with us to improve our understanding of the benefits and challenges of using SMAP data.* | | |

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| *The rest of the workshop will be characterized by small-group discussions (break-outs), organized by SMAP Thematic Groups to answer:*<br>• *What are the known and potential SMAP applications?*<br>• *What are the technical challenges for integrating SMAP data into models and processes?* | | |
| **13 October Thursday** | | |
| **7:30am** | **Registration and Coffee** | |
| **8:30-8:45am** | Susan Moran-USDA | Describe Charge to Break out Groups |
| **8:45-11:30am** | **Break out groups:** Organized by thematic group<br>*Disasters*<br>*Human Health*<br>*Water Resources*<br>*Ecosystem Forecasting*<br>*Weather*<br>*Agriculture and Forestry*<br>*Climate* | |
| | **10:00-10:15am Break** | |
| **11:30-1:00pm** | **Lunch** | |
| **1:00pm-4:30pm** | **Reports from Breakout and Panel Discussion:** Each thematic breakout group will have an elect representative to present outcomes of the thematic break out session. The representatives will form a panel to encourage discussion. | |
| | **3:00-3:30 pm Break** | |
| | Molly Brown, NASA | Feedback and Group Discussions |
| **4:30pm** | **Workshop Adjourn** | |